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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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EXAMINER

PATTERSON, M

ART UNIT

PAPER NUMBER

1772

DATE MAILED: 02/12/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/462,179

Applicant(s)

PEDUTO ET AL.

Examiner

Marc A Patterson

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- 1) ☐ Responsive to communication(s) filed on 10 March 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some * c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☒ received.
2. ☐ received in Application No. (Series Code / Serial Number) _____.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

DETAILED ACTION

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 8 – 12, 16 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In Claim 1, the phrase ‘the said’ (‘the said’ amino acid, for example) is redundant. In Claims 8, 10 – 12 and 19, the word ‘type’ (external ‘type’ and 6/6 – 36 ‘type’ for example) is unclear. In Claim 16, the phrase ‘capable of’ is indefinite.

3. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear what type of ‘alternate arrangement’ is being referred to (whether the arrangement is molecular, or some other form of arrangement).

4. Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The specification makes no reference to the chain extender which is claimed.

5. Claims 6, 7 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term ‘similar’ is unclear.

6. Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The density which is claimed has units omitted.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1 – 7, 9 – 12 and 14 – 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kerschbaumer in view of Princiotta et al. Kerschbaumer discloses a three – layered tube having impact resistance – modified layers. The internal layer consists of polyamide 6, with an added impact resistance modifier which may be a polyethylene rubber component (column 2, lines 39 – 47). The middle layer, which serves as a barrier layer and is identical to the outer layer, consists of Grilon CA6E, an amorphous copolyamide based on caprolactam and laurolactam (a lactam which corresponds to an amino acid having at least 9 carbons), and Grilamid XE3148, an impact resistance modifier (column 3, lines 1 – 40; Table 1). The tube may comprise additional barrier layers, separated by additional layers having the composition of the internal or external layers (column 2, lines 58 – 62). All of the layers, except for the barrier layers, comprise plasticizer (claim 3).

The invention of Kerschbaumer differs from the claimed invention in that the polyethylene rubber component which is used as an impact resistance modifier is not an acid – modified ultra low density polyethylene. Princiotta et al. teach an acid – modified ultra low density polyethylene which is used as an impact modifier of polyamide 6 (page 2, lines 31 – 58). It would therefore have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to have modified the hose disclosed by Kerschbaumer with the polyethylene taught by Princiotta et al. in order to obtain the strength characteristics disclosed by Princiotta et al. A T_g below 0 degrees Celsius, a modulus of less than 200 MPa and a melt flow index of between 0.1 and 7 g/10min measured at 190 degrees Celsius under a load of 2.16 kg would be expected for the ultra low density polyethylene taught by Princiotta et al., as it is identical to that of the claimed invention.

The invention of Kerschbaumer also differs from the claimed invention in that the outer (barrier) layer does not comprise a second polyamide comprising polyamide 6. Kerschbaumer teaches, however, that it is known in the art to use polyamide 6 as a barrier layer in the making of multilayered hoses (column 2, lines 10 – 19). It would therefore have been obvious to one of ordinary skill in the art to blend polyamide 6 with Grilon CA6E to produce the outer layer, in order to obtain a barrier layer having the combined properties of polyamide 6 and Grilon CA6E. The amount of plasticizer which is added to the inner layer (which determines its *modulus*), as well as the amount of impact resistance modifier added to both layers, are design optimizations, and it would have been obvious to one of ordinary skill in the art to vary these parameters in order to obtain the desired mechanical properties and impact resistance for both layers.


Art Unit: 1772

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Patterson, whose telephone number is (703) 305-3537. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by phone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached at (703) 308-2364. FAX communications should be sent to (703) 305-3599. FAXs received after 4 P.M. will not be processed until the following business day.

M.A.P.

M.A.P.


HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

2/9/01